

a plurality of data storage packs each of said packs including:

- (a) a first data storage media containing a plurality of data storage units arranged in a predetermined matrix, said data storage units adapted to provide data in a format having relatively high capacity, and
- (b) a second data storage media electrically independent of said first data storage media and mechanically attached to said first data storage media, said second data storage media adapted to provide digital data in a format permitting relatively high accessing speed,

processing means coupled to each of said second data storage media, said processing means including means to merge, sort and search said data of said second data storage media, said second media providing storage space for the main memory of said processing means,

said second data storage media of each of said packs having a switch to set said second data storage media into one of two modes, a local mode and a global mode; when in said local mode, said second data storage media containing digital data related only to the ones of said first data storage media to which it is attached; when in said global mode, said second data storage media containing digital data from a plurality of said data storage packs.

3. A data storage pack comprising:

- a first data storage media containing a plurality of data storage units arranged in a predetermined matrix, and
- a second data storage media electrically independent of said first data storage media mechanically attached to said first data storage media,
- said data storage units of said first data storage media adapted to provide analog data,
- said second data storage media adapted to provide digital data in a format permitting relatively high accessing speed,
- said second data storage media containing digital application data and digital control data, said digital control data serving to locate and select data in said data storage units of said matrix and to correlate the data from said matrix to corresponding portions of said digital application data,
- each of said analog data storage units comprising a multi-record tape adapted to be played for the presentation of the data in one or more records contained thereon, said tape having a predetermined starting point,
- each of said records being divided into a plurality of sequential segments,
- each of said records having a first segment constituting the beginning of the record and a last segment constituting the end of the record,
- said segments of each of said records being interleaved with one another along the length of said tape so that each of said records is distributed along a substantial portion of said tape,
- said first segments and said last segments of said records being interleaved with one another at beginning portion of said tape, the intermediate segments of each of said records being interleaved with one another along positions of said tape further removed from said beginning portion of said tape,
- the sequential accessing of said segments of a predetermined record requiring scrolling to said first

segment of said predetermined record near the beginning of said tape and then scrolling along said tape to each of the intermediate segments of said predetermined record to an approximately central intermediate segment and then scrolling back through said tape to subsequent intermediate segments and finally to said last segment of said predetermined record positioned near the front of said tape.

4. A data storage memory system comprising:

- at least one data storage pack, said pack comprising:
 - (a) the first data storage media containing a plurality of analog data storage tape units arranged in a predetermined matrix,
 - (b) a second data storage media electrically independent of said first data storage media mechanically attached to said first data storage media, said second data storage media including digital application data and digital control data, said digital control data serving to identify and locate selected data in said data storage units of said matrix and to corresponding portions of said digital application data,
- player means adapted to play said data storage units of said matrix, and
- mechanical means responsive to said digital control data and coupled to said analog tape to position the one of said analog data units having said selected analog data at said player means, and
- said player means providing said selected analog data and corresponding digital application data in a format adapted for display,
- said player means comprising two player decks for scrolling and playing said analog tape, and a head drum positioned between said player decks,
- the axis of said head drum being oblique to a first plane which is parallel to said player decks and is contained within a second plane which is perpendicular to the first plane and which extends through the center line of said player decks,
- two loading devices, one associated with each player deck to wrap said tape from either deck around either left or right side of said head drum,
- each said load device comprising a pair of loading poles movable on a set of tracks surrounding said head drum and a pair of auxiliary poles movable on a second pair of tracks to guide the tape around said drum.

5. A data storage memory system comprising:

- at least one data storage pack, said pack comprising:
 - (a) a first data storage media containing a plurality of data storage units arranged in a predetermined matrix, said data storage units adapted to provide data in a format having relatively high capacity,
 - (b) a second data storage media electrically independent of said first data storage media mechanically attached to said first data storage media, said second data storage media including digital application data and digital control data, said digital control data serving to identify and locate selected data in said data storage units of said matrix and to corresponding portions of said digital application data,
- player means adapted to play said data storage units of said matrix, and
- mechanical means responsive to said digital control data and coupled to said analog tape to position the